

Amendments To the Claims:

Please amend the claims as shown.

1. (currently amended) A Ggas turbine blade (1) with a ceramic thermal insulation layer (17) that comprises 10 to 95 percent by weight magnesium aluminate (MgAl_2O_4), 5 to 90 percent by weight magnesium oxide (MgO), 0 to 20 percent by weight aluminum oxide (Al_2O_3) as well as a residue of ordinary impurities and is embedded in the granules (23) of magnesium oxide (MgO) with an average diameter of 0.1 μm to 10 μm in a matrix of spinel-shaped magnesium aluminate (MgAl_2O_4), whereby the ceramic thermal insulation layer (17) has a porosity exceeding 3 percent by volume.
2. (currently amended) The Ggas turbine blade (1) according to Claim 1, whereby the granules (23) have an average diameter of 0.1 μm to 2 μm .
3. (currently amended) The Ggas turbine blade (1) according to Claim 1, whereby the thermal insulation layer (17) contains 55 to 80 percent by weight magnesium oxide (MgO).
4. (currently amended) The Ggas turbine blade (1) according to Claim 1, whereby the thermal insulation layer (17) also comprises at least one oxide ~~from the group that contains~~ selected from the group consisting of: CaO , SiO_2 , ZrO_2 and Fe_2O_3 .
5. (currently amended) The Ggas turbine blade (1) according to Claim 1, ~~that has~~ having a basic body (15) of a nickel or cobalt base superalloy whereby the ceramic thermal insulation layer (17) is applied to the basic body (15) and whereby a first layer (31) is applied adjacent to the basic body (15), to which a second layer (33) differing in composition from the first layer (31) has been applied.
6. (currently amended) The Ggas turbine blade (1) according to Claim 5, whereby the basic body (15) comprises a metallic corrosion protective layer (15A) applied to the superalloy.

7. (currently amended) ~~The~~ Gas turbine blade (1) according to Claim 5, whereby the first layer (31) ~~consists of~~ comprises 10 to 95 percent by weight magnesium aluminate (MgAl_2O_4), 5 to 90 percent by weight magnesium oxide (MgO), 0 to 20 percent by weight aluminum oxide (Al_2O_3) and the second layer (33) ~~consists of~~ comprises yttrium oxide (Y_2O_3)-stabilized zirconium dioxide (ZrO_2).

8. (currently amended) ~~The~~ Gas turbine blade (1) according to Claim 5, whereby the first layer (31) ~~consists of~~ comprises yttrium oxide (Y_2O_3)-stabilized zirconium dioxide (ZrO_2) and the second layer (33) ~~of~~ comprises 10 to 95 percent by weight magnesium aluminate (MgAl_2O_4), 5 to 90 percent by weight magnesium oxide (MgO) and 0 to 20 percent by weight aluminum oxide (Al_2O_3).

9. (currently amended) ~~The~~ Gas turbine blade (1) according to Claim 5, whereby the first layer (31) and the second layer (33) ~~consist of~~ comprise 10 to 95 percent by weight magnesium aluminate (MgAl_2O_4), 5 to 90 percent by weight magnesium oxide (MgO) and 0 to 20 percent by weight aluminum oxide (Al_2O_3), whereby the first layer (31) has a smaller porosity than the second layer (33).

10. (currently amended) ~~The~~ Gas turbine blade (1) according to Claim 1, whereby the ceramic thermal insulation layer (17) is applied to a ceramic base layer (41) that has a porosity of less than 2 percent by volume.

11. (currently amended) ~~The~~ Gas turbine blade (1) according to Claim 1, whereby the porosity in the ceramic thermal insulation layer (17) increases in increments towards the outside.

12. (new) A gas turbine blade having a body comprising a nickel or cobalt base superalloy and a ceramic thermal insulation layer applied to the body, comprising:

a first layer applied adjacent the body, the first layer comprising:

10 to 95 percent by weight magnesium aluminate (MgAl_2O_4),

5 to 90 percent by weight of magnesium oxide (MgO),

0 to 20 percent by weight aluminum oxide (Al_2O_3), wherein

the magnesium oxide is in a granule form with an average diameter of 0.1 μm to 10 μm and the magnesium oxide granules are disposed in a matrix of spinel-shaped magnesium aluminate; and

a second layer differing in composition from the first layer applied to the first layer,

13. (new) The gas turbine blade according to claim 12, wherein the second layer comprises yttrium oxide (Y_2O_3)-stabilized zirconium dioxide (ZrO_2).

14. (new) The gas turbine blade accordingly to claim 12, wherein layers have a porosity exceeding 3 percent by volume.

15. (new) The gas turbine blade according to Claim 12, wherein the granules have an average diameter of 0.1 μm to 2 μm .

16. (new) The gas turbine blade according to Claim 12, wherein the thermal insulation layer contains 55 to 80 percent by weight magnesium oxide (MgO).

17. (new) The gas turbine blade according to Claim 12, wherein the thermal insulation layer further comprises at least one oxide selected from the group consisting of: CaO , SiO_2 , ZrO_2 and Fe_2O_3 .

18. (new) The gas turbine blade according to Claim 12, having a body of a nickel or cobalt base superalloy wherein the ceramic thermal insulation layer is applied to the basic body and wherein the first layer is applied adjacent to the basic body, to which the second layer is applied.

19. (new) The gas turbine blade according to Claim 17, wherein the basic body comprises a metallic corrosion protective layer applied to the superalloy.

20. (new) A ceramic insulation layer of a turbine blade having porosity exceeding 3 percent by volume, comprising:

10 to 95 percent by weight magnesium aluminate (MgAl_2O_4);

5 to 90 percent by weight magnesium oxide (MgO);
0 to 20 percent by weight aluminum oxide (Al₂O₃); and
a residue of ordinary impurities,
whereby the magnesium oxide (MgO) has an average diameter of 0.1 μm to 10 μm and is
arranged in a matrix of spinel-shaped magnesium aluminate (MgAl₂O₄).